



The microprocessor-controlled pressure transducers of the DS01 type series are suitable for detection of excess pressure, low pressure or differential pressure of non-aggressive gasses. Pressure measurement is carried out via a piezo-resistive pressure sensor. The sensor is available with two different basic pressure ranges. These ranges may be subdivided by means of the DIP switch. The temperature drift of the sensors is compensated individually. The wear-free measurement system allows for almost maintenance-free operation. The integrated electronic system provides a pressure-proportional analogue voltage signal (0 ... 10 V) and a current signal of 0 ... 20 mA. This signal may be switched to 4 ... 20 mA. For strongly varying pressures a dampening function is included. This function may be switched from approx. 10 ms (retardation) to 2 sec. or 4 sec. by means of the DIP switch. An LC display is optionally available and may be retrofitted by means of patch system.

Fields of application

Heating - ventilation - air condition; clean room technology; finishing pass measurement; filter monitoring

Technical data

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| Measuring range, relative | 10 hPa, 7,5 hPa, 5 hPa, 2,5 hPa oder 100 hPa, 75 hPa, 50 hPa, 25 hPa |
| Measuring principle | Piezo-resistive |
| Overload capacity | 680 hPa |
| Medium | Non-aggressive gasses |
| Max. system pressure | 680 hPa |
| Parts in contact with the medium | Ni, PU, Pyrex glas, silicone, Kovar, gold, aluminium, duraplast, Ultem plastic |
| Linearity | ± 2 % from adjusted measurement range |
| Hysteresis | ± 2 % from adjusted measurement range |
| Output signal | 0... 10 V and 0 (4)... 20 mA switchable DIP |
| Supply | 14... 38 VDC or 12... 31 VAC |
| Power consumption | Approx. 20 mA (without load) |
| Polarity reversal protection | yes |
| Supply influence | < 0,05 % |
| Position influence | Dependent from adjusted measurement range, max, 2% |
| Time constant | Approx. 10 ms, 2 sec. and 4 sec. delay switchable DIP-switch |
| Temperature drift | Zero point ± 0,12 % of f.v./ K from adjusted measurement range Span ± 0,12 % of f.v./ K from adjusted measurement range |
| Temperature range | Specified range + 10°C to + 50°C |
| Humidity | Up to 80 % relative humidity |
| Storage temperature | - 10... + 70 °C |
| Long-term stability | ± 2 % per year (typical). |
| Housing | 86 x 56 x 40 mm (H x W x D) |
| Pressure connections | Ø 6,6 x 10 mm (for flexible hoses Ø 6 mm) |
| Electrical connections | Screw-type terminals, diameter max. 1,5 mm ² |
| Screwed connection | M 12 x 1,5 |

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| Protection class | III |
| Protection type | IP54 |
| Standards | EN 61000-6-1; EN 61000-6-2 ; EN 61000-6-3 ; EN 61000-6-4 ; EN 61010 |
| Weight | Approx. 0,2 kg |
| Option: LCD | LC-display, 3 1/2-digits |

Dimensions

